

**Notice of Allowability**

Application No.

10/660,894

Examiner

Frederick C. Nicolas

Applicant(s)

O'BRIEN ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 3/29/2006.
2. ☒ The allowed claim(s) is/are 20-38.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 4/10/2006.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 4/10/2006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Fig.1.

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with the applicant Mr. William Merten on 4/10/2006.

The application has been amended as follows:

#### IN THE CLAIMS:

Claim 20, line 11, "may be" has been deleted and --is-- has been inserted.

Claim 23, line 2, "body of liquid" has been deleted and --container-- has been inserted; line 4, "body of liquid" has been deleted and --container-- has been inserted; lines 4-5, "into said body of liquid" has been deleted.

Claim 24, line 3, "the free volume of said system" has been deleted and --the volume of said variable chamber-- has been inserted.

Claim 25, line 5, "actuation" has been deleted and --operation-- has been inserted.

Claim 26, line 3, "substitute said liquid for said gas within" has been deleted and --fill-- has been inserted; line 4, before "while", --with said liquid-- has been inserted; line 4, "within" has been deleted and --of-- has been inserted.

Claim 27, line 5, "the free volume of" has been deleted.

Claim 32, line 2, "body of liquid" has been deleted and --container-- has been inserted; line 4, "body of liquid" has been deleted and --container-- has been inserted; lines 4-5, "into said body of liquid" has been deleted.

Claim 33, lines 3-4, "the free volume of said system prior to aspiration of a liquid" has been deleted and --the volume of said system-- has been inserted.

Claim 34, line 3, "substitute said liquid for said gas within" has been deleted and --fill-- has been inserted; line 4, before "by", --with said liquid-- has been inserted; line 5, "actuation" has been deleted and --operation-- has been inserted.

Claim 35, line 3, "substitute said liquid for said gas within" has been deleted and --fill-- has been inserted; line 4, before "while", --with said liquid-- has been inserted; line 4, "within" has been deleted and --of-- has been inserted.

Claim 36, line 5, "the free volume of" has been deleted.

Claim 38, line 2, after "of", --:-- has been inserted; line 9, "of" has been deleted and --for-- has been inserted; line 23, "of" has been deleted and --for-- has been inserted; line 29, "the known" has been deleted and --said given-- has been inserted; lines 29-30, "the complete filling of said system" has been deleted and --said exhausting gas from said system-- has been inserted; lines 30-33, "the aspirated liquid and aspiration of an excess volume of said liquid in addition to said given volume of liquid is not necessary to achieve an accurate measurement of said given volume of liquid" has been deleted and --said liquid and an aspiration of said liquid in excess of said given volume of said liquid-- has been inserted.

IN THE SPECIFICATION:

On page 8 of the specification (note: page 7 is the page under the **TITLE**, DETAILED DESCRIPTION OF THE INVENTION", line 3, after "from", --a container 15 through-- has been inserted.

**IN THE DRAWINGS:**

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: in Figure 1, "containers" have been labeled as --15--, as per the attached drawing. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

***Allowable Subject Matter***

2. Claims 20-38 are allowed.
3. The following is an examiner's statement of reasons for allowance: the prior art fails to disclose or render obvious a device for the volumetric measurement and dispensing of liquids in combination with the other claimed limitations of claim 20:

"a means to detect the presence or absence of liquid in said at least one conduit so that the precise location of said liquid in relation to said plurality of valves and said variable volume chamber is determined."

The prior art fails to disclose or render obvious a device for the volumetric measurement and dispensing of liquids in combination with the other claimed limitations of claim 29:

"a means for removing gas from a system formed by said variable volume chamber, said at least one valve, and said at least one conduit, said means for removing gas comprising a fluid path extending from the interior to the exterior of said

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variable volume chamber, said fluid path being distinct from said at least one conduit, and said fluid path in fluid communication with at least one additional valve, whereby said liquid aspirated into said system substantially fills said system thereby minimizing the difference between the volume of said aspirated liquid and the volume of said system.”

Further, the prior art fails to disclose or render obvious a method to accurately aspirate any given volume of liquid in combination with the other claimed limitations of claim 38:

“exhausting gas from said system through said fluid path by controllably decreasing the volume of said variable volume chamber until said liquid is displaced to a precise location in said fluid path predetermined by the position of said at least one means of detecting the presence or absence of said liquid,

- i. closing said at least one additional valve,
- j. opening said at least one valve,
- k. aspirating an additional volume of said liquid equal to the difference in volume between said given volume of said liquid and said initial volume of said liquid”.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

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**Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick C. Nicolas whose telephone number is (571)-272-4931. The examiner can normally be reached on Monday - Friday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Y. Mar, can be reached on 571-272-4906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FN  
April 10, 2006

 4/10/06  
Frederick C. Nicolas  
Primary Examiner  
Art Unit 3754

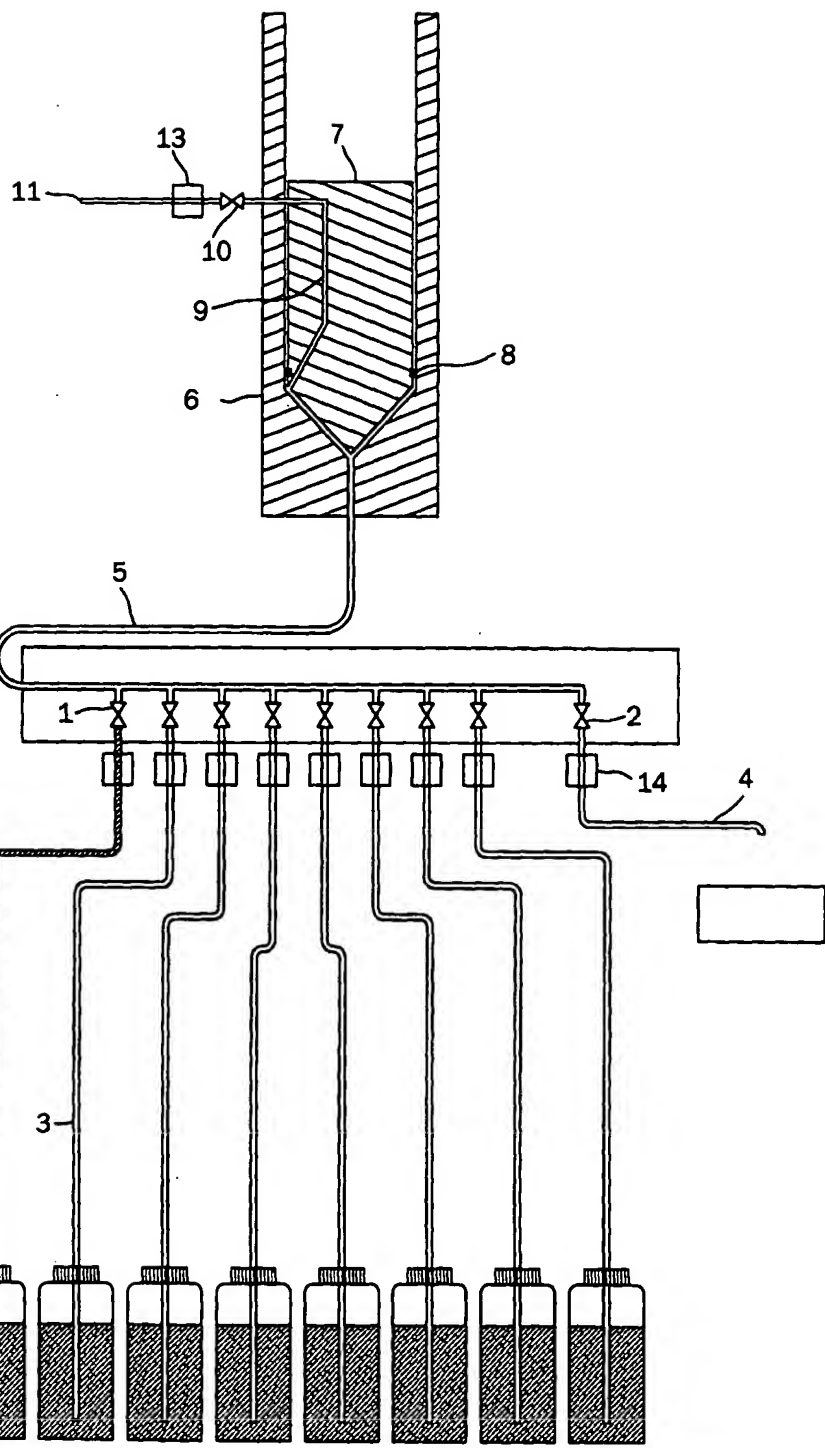


FIG. 1

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FIN  
4/10/06